Attorney's Docket No.: 10559-132002 / P7871C



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gilbert Wolrich et al.

Art Unit : 2661

Serial No.: 10/684,078

Examiner: Unknown

Filed

: October 10, 2003

Title

: METHOD AND APPARATUS FOR GIGABIT PACKET ASSIGNMENT FOR

MULTITHREADED PACKET PROCESSING

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449. Applicant has not provided copies of the US patents in accordance with the waiver posted on the USPTO website.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits. Please apply any charges or credits to deposit account 06-1050, 10559-132002.

Respectfully submitted,

Denis G. Malone Reg. No. 29,670

Fish & Richardson P.C. 225 Franklin Street

Boston, MA 02110-2804

Telephone: (617) 542-5070

Facsimile: (617) 542-8906

132002ids.doc

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Hpn 1 200 Date of Depo

Signature

Typed or Printed Name of Person Signing Certificate

MAY Substitute Form

ubstitute Form PTO-1449

U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 10559-132002

Application No. 10/684,078

Information Disclosure Statement by Applicant (Use several sheets if necessary)

Gilbert Wolrich et al.

(37 CFR §1.98(b))

Filing Date 10/10/03

Applicant

Group Art Unit 2661

				nt Documents			
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/TN/	AA	6,694,380	02/17/2004	Wolrich et al.			
200000	AB	6,681,300	01/20/2004	Wolrich et al.			
	AC	6,668,317	12/23/2003	Bernstein et al.			
00000	AD	6,667,920	06/09/2003	Wolrich et al.			
	AE	6,661,794	12/09/2003	Wolrich et al.			
	AF	6,631,462	10/07/2003	Wolrich et al.			
	AG	6,631,430	10/07/2003	Wolrich et al.			
	AH	6,625,654	09/23/2003	Wolrich et al.			
000	AI	6,606,704	08/12/2003	Adiletta et al.			
0000000	AJ	6,587,906	07/01/2003	Wolrich et al.			
0000000	AK	6,584,522	06/24/2003	Wolrich et al.			
	AL	6,577,542	06/10/2003	Wolrich et al.			
	AM	6,560,667	05/06/2003	Wolrich et al.			
2000000	AN	6,552,826	04/22/2003	Adler et al.			
900000	AO	6,532,509	03/11/2003	Wolrich et al.			
00000000	AP	6,463,072	10/08/2002	Wolrich et al.			
	AQ	6,434,145	08/13/2002	Opsasnick et al.		,	
	AR	6,430,626	08/06/2002	Witkowski et al.			
0000000	AS	6,427,196	07/30/2002	Adiletta et al.			
000000	AT	6,426,940	07/30/2002	Seo et al.			
00000000	AU	6,415,338	0702/2002	Habot			
000000	AV	6,393,483	05/21/2002	Latif et al.			
	AW	6,389,449	05/14/2002	Nermirovsky et al.			
	AX	6,373,848	04/16/2002	Allison et al.		,	
00000	AY	6,360,262	03/19/2002	Guenthner et al.			
V	AZ	6,356,692	03/12/2002	Kasper et al.			
/TN/	AAA	6,347,344	02/12/2002	Baker et al.			

Examiner	Signature
----------	-----------

/Toan Nguyen/

Date Considered

10/25/2008

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)

U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 10559-132002

Application No. 10/684,078

Information Disclosure Statement by Applicant (Use several sheets if necessary)

Gilbert Wolrich et al.

Filing Date 10/10/03

Applicant

Group Art Unit 2661

(37 CFR §1.98(b))

U.S. Patent Documents Desig. Document Publication Examiner Filing Date Initial ID Number Date **Patentee** Class Subclass If Appropriate /TN/ ABB 6,345,334 02/05/2002 Nakagawa et al. ACC 6,324,624 11/27/01 Wolrich et al. ADD 6,307,789 10/23/2001 Wolrich et al. **AEE** 6,298,370 10/02/2001 Tang et al. AFF 6,289,011 09/11/2001 Seo et al. **AGG** 6,279,113 08/21/2001 Vaidya AHH 6,275,505 08/14/2001 O'Loughlin et al. AII 6,272,616 08/07/2001 Fernando et al. AJJ 6,256,713 07/03/2001 Audityan et al. AKK 6,247,025 06/12/2001 Bacon ALL 6,223,279 04/24/2001 Nishimura et al. **AMM** 6,223,238 04/24/2001 Meyer et al. ANN 6,223,207 04/24/2001 Lucovsky et al. AOO 6,216,220 04/10/2001 Hwang APP 6,212,611 04/03/2001 Nizar et al. AQQ 6,212,542 04/03/2001 Kahle et al. ARR 6,201,807 03/18/2001 Prasanna ASS 6,199,133 03/06/2001 Schnell ATT 6,195,676 02/27/2001 Spix et al. AUU 6,182,177 01/30/2001 Harriman AVV 6,160,562 12/12/2000 Chin et al. **AWW** 6,157,955 12/05/2000 Narad et al. **AXX** 6,145,054 11/07/2000 Mehrotra et al. AYY 6,144,669 11/07/2000 Williams et al. **AZZ** 6,141,765 10/31/2000 Sherman **AAAA** 6,141,689 10/31/2000 Yasrebi /TN/ **ABBB** 6,134,665 10/17/2000 Klein et al.

Examiner Signature

/Toan Nguyen/

Date Considered

10/25/2008

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attomey's Docket No. 10559-132002	Application No. 10/684,078	
	closure Statement oplicant	Applicant Gilbert Wolrich et al.		
(Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date 10/10/03	Group Art Unit 2661	-

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/TN/	ACCC	6,112,016	08/29/2000	MacWilliams et al.			
888	ADDD	6,092,158	07/18/2000	Harriman et al.			
- 000	AEEE	6,092,127	07/18/2000	Tausheck			
	AFFF	6,085,294	07/04/2000	Van Doren et al.			
	AGGG	6,085,215	07/04/2000	Ramakrishnan et al.			
	АННН	6,079,008	06/20/2000	Clery, III			
000	AIII	6,073,215	06/06/2000	Snyder			
	AJJJ	6,072,781	06/06/2000	Feeney et al.			
	AKKK	6,070,231	05/30/2000	Ottinger			
	ALLL	6,067,585	05/23/2000	Hoang			
2000	AMMM	6,058,168	05/02/2000	Braband			
*	ANNN	6,023,742	02/08/2000	Ebeling et al.			
00000	A000	6,014,729	01/11/2000	Lannan et al.			
	APPP	6,012,151	01/04/2000	Mano			
8	AQQQ	5,983,274	11/09/1999	Hyder et al.			
000000	ARRR	5,978,838	11/02/1999	Heinrich et al.		-	
	ASSS	5,970,013	10/19/1999	Fischer et al.			
0000000	ATTT	5,961,628	10/05/1999	Nguyen et al.			
0000000	AUUU	5,958,031	09/28/1999	Kime			
0000000	AVVV	5,948,081	09/07/1999	Foster			
	AWWW	5,946,487	08/31/1999	Dangelo			
20000	AXXX	5,940,866	08/17/1997	Chisholm et al.			
00000000	AYYY	5,940,612	08/17/1999	Brady et al.			
0000000	AZZZ	5,937,187	08/21/1995	Kosche et al.			
	AAAAA	5,928,736	08/17/1999	Muller et al.			
V	ABBBB	5,915,123	06/22/1999	Mirsky et al.			
/IN/	ACCCC	5,905,889	05/18/1999	Wilhelm, Jr.			

Examiner Signature /Toan Nguyen/	Date Considered 10/25/2008
EXAMINER: Initials citation considered. Draw line through citation if no next communication to applicant.	t in conformance and not considered. Include copy of this form with

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-132002	Application No. 10/684,078	
1	closure Statement oplicant	Applicant Gilbert Wolrich et al.		
(Use several sheets if necessary)		Filing Date	Group Art Unit	
(37 CFR 61 98(b))		10/10/03	2661	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/TN/	ADDDD	5,905,876	08/18/1999	Pawlowski et al.			
0000000	AEEEE	5,892,979	04/06/1999	Shiraki et al.			
, ,	AFFFF	5,890,208	03/30/1999	Kwon			
	AGGGG	5,887,134	03/23/1999	Ebrahim			
	АНННН	5,886,992	03/23/1999	Raatikaien et al.			
	AIIII	5,860,158	01/12/1999	Pai et al.			
	AJJJJ	5,854,922	12/29/1998	Gravenstein et al.			
	AKKKK	5,835,755	11/10/1998	Stellwagen, Jr.			
	ALLLL	5,832,215	11/03/1998`	Kato et al.			
3000000	AMMMM	5,828,863	10/27/1998	Barrett et al.			
000000	ANNNN	5,828,746	10/27/1998	Ardon			
, , , , , , , , , , , , , , , , , , , ,	A0000	5,812,868	11/22/1998	Moyer et al.			
***************************************	APPPP	5,809,530	09/15/1998	Samra et al.			
	AQQQQ	5,809,235	09/15/1998	Sharma et al.			
, , , , , , , , , , , , , , , , , , ,	ARRRR	5,797,043	08/18/1998	Lewis et al.			
800	ASSSS	5,796,413	08/18/1998	Shipp et al.			
000000	ATTTT	5,784,712	07/21/1998	Byers et al.			
000000000000000000000000000000000000000	AUUUU	5,784,649	07/21/1998	Begur et al.			
000000	AVVVV	5,781,774	07/14/1998	Krick			
00000000	AWWWW	5,761,522	06/02/1998	Hisanga et al.		,	
00000	AXXXX	5,761,507	06/02/1998	Govett			
20000000	AYYYY	5,751,987	04/12/1998	Mahant-Shetti et al.			
	AZZZZ	5,745,913	04/28/1998	Pattin et al.			
	AAAAA	5,742,822	04/21/1998	Motomura			
	ABBBBB	5,742,782	04/21/1998	Ito et al.			
V	ACCCCC	5,742,587	04/21/1998	Zornig et al.			
/TN/	ADDDDI	5,721,870	02/24/1998	Matsumoto			

Examiner Signature /Toar	Nguyen/	Date Considered	10/25/2008
EVANDED 1 31 1 3 1	Control Day Control Control		
		it in conformance and	not considered. Include copy of this form with
next communication to applicar	nt		

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-132002	Application No. 10/684,078
1	closure Statement pplicant	Applicant Gilbert Wolrich et al.	
(Use several si	heets if necessary)	Filing Date 10/10/03	Group Art Unit 2661

				ent Documents			
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/TN/	AEEEEE	5,717,898	02/10/1998	Kagan et al.			
00000000	AFFFFF	5,699,537	12/16/1997	Sharangpani et al.			
• 0000000	AGGGGC	5,689,566	11/18/1997	Nguyen			
00000	АНННН	5,680,641	10/21/1997	Sidman			
	AIIIII	5,659,687	08/19/1997	Kim et al.			
	AJJJJJ	5,649,157	07/15/1997	Williams			
	AKKKKK	5,644,623	07/01/1997	Gutledge			
	ALLLLL	5,630,641	05/13/1997	Perotto et al.			
	АММММІ	5,627,829	05/06/1997	Gleeson et al.			
	ANNNN	5,623,489	04/22/1997	Cotton et al.			
	A00000	5,613,136	03/18/1997	Casavant et al.			
	APPPPP	5,613,071	03/18/1997	Rankin et al.			
, , , , , , , , , , , , , , , , , , ,	AQQQQQ	5,592,622	01/07/1997	Isfeld et al.			
	ARRRR	5,574,922	11/12/1996	James			-
000000000000000000000000000000000000000	ASSSSS	5,568,617	10/22/1996	Kametani			
2000000	ATTTTT	5,557,766	09/17/1996	Takiguchi et al.			
00000000	AUUUUU	5,550,816	08/27/1996	Hardwick et al.			
0000000	AVVVV	5,544,236	08/06/1996	Andruska et al.			
000000000000000000000000000000000000000	wwww	5,542,088	07/30/1996	Jennings, Jr. et al.			
000000	AXXXXX	5,542,070	07/30/1996	LeBlanc et al.			
	AYYYYY	5,517,648	05/14/1996	Bertone et al.		•	
	AZZZZZ	5,467,452	11/14/1995	Blum et al.			
	ААААА	5,463,625	10/31/1995	Yasrebi			
	аввввві	5,459,842	10/17/1995	Begun et al.			
4	ACCCCC	5,452,437	09/19/1995	Richey et al.			
V	ADDDDDD	5,450,351	09/12/1995	Heddes			
/TN/	AEEEEEE	5,448,702	09/05/1995	Garcia, Jr. et al.		, , , , , , , , , , , , , , , , , , ,	

Examiner Signature /Toan Nguyen/	Date Considered	10/25/2008
EXAMINER: Initials citation considered. Draw line through citation if no next communication to applicant.	t in conformance and	d not considered. Include copy of this form with

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-132002	Application No. 10/684,078	
Information Disclo by App		Applicant Gilbert Wolrich et al.		
(Use several shee	ts if necessary)	Filing Date 10/10/03	Group Art Unit 2661	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/TN/	AFFFFF	5,432,918	07/11/1995	Stamm			
888000	AGGGGG	5,404,484	04/04/1995	Bennett			
, ,	АНННН	5,404,482	04/04/1995	Stamm et al.			
000000	AIIIIII	5,392,412	02/21/1995	McKenna			
0000000	AJJJJJ	5,392,411	02/21/1995	Ozaki			
000000	AKKKKK	5,392,391	02/21/1995	Caulk, Jr. et al.			
0000	ALLLLI	5,390,329	02/14/1995	Gaertner et al.			
	ммммм	5,367,678	11/22/1994	Lee et al.		-	
	ANNNNN	5,347,648	09/13/1994	Stamm et al.			
00000	A00000	5,263,169	11/16/1993	Genusov et al.		-	
0000	APPPPP	5,255,239	10/19/1993	Taborn et al.			
• 000000	AQQQQQ	5,173,897	12/22/1992	Pfeiffer et al.			
	ARRRRRI	5,168,555	12/01/1992	Byers et al.			
000	ASSSSS	5,155,854	10/13/1992	Flynn et al.			
0000	ATTTTT	5,155,831	10/13/1992	Emma et al.			
	AUUUUU	5,142,683	08/25/1992	Burkhardt, Jr. et al.			
	AVVVVV	5,140,685	08/18/1992	Sipple et al.			
0000000	wwwww	4,866,664	09/12/1989	Burkhardt, Jr. et al.			
	AXXXXX	4,745,544	05/17/1988	Renner et al.			
	AYYYYY	4,523,272	06/11/1985	Fukunaga et al.			
	AZZZZZ	4,514,807	04/30/1985	Nogi			
000000000	AAAAA	4,400,770	08/23/1983	Chan et al.			
XXX	АВВВВВВ	4,130,890	12/19/1978	Adam			
XX	rccccc	3,940,745	02/24/1976	Sajeva			
90000	DDDDDI	3,792,441	02/12/1974	Wymore et al.			_
V	AEEEEEE	3,478,322	11/11/1969	Evans			
/TN/	AFFFFFF	3,373,408	03/12/1968	Ling			

Ex	aminer Signature	/Toan Nguyen/	Date Considered	10/25/2008
	KAMINER: Initials of ext communication to		gh citation if not in conformance and	not considered. Include copy of this form with

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-132002	Application No. 10/684,078	
	closure Statement oplicant	Applicant Gilbert Wolrich et al.		
(Use several sheets if necessary) (37 CFR \$1 98(b))		Filing Date 10/10/03	Group Art Unit 2661	

	U.S. Patent Documents							
1	miner itial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/T1	4/	GGGGGG	10/726,757	12/03/2003	Wolrich et al.			
		ннннн	10/664,202	09/16/2003	Wolrich et al.			
4		AIIIIII	10/644,337	08/20/2003	Wolrich et al.			
		AJJJJJJ	10/643,438	08/19/2003	Bernstein et al.			
		ккккк	10/615,500	07/08/2003	Adiletta			
		ALLLLLL	10/615,280	07/08/2003	Wolrich et al.			
		иммммі	10/440,079	05/15/2003	Wolrich et al.			
		חחחחחח	09/476,303	12/30/1999	Wolrich et al.			
		000000	09/475,614	12/30/1999	Wolrich at al.			
- AND	/	APPPPPP	09/473,571	12/28/1999	Wolrich et al.			
/T	N/	QQQQQQ	09/387,109	08/31/1999	Adiletta et al.			

	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Trans Yes	lation No
/TN/	RRRRRR	WO 01/50679	07/12/2001	WIPO				
90000	ASSSSSS	WO 01/50247	07/12/2001	WIPO				
	ATTTTTT	WO 01/48619	07/05/2001	WIPO				
888	บบบบบเ	WO 01/48606	07/05/2001	WIPO				
0000	vvvvv	WO 01/48596	07/05/2001	WIPO				
000	wwww	WO 01/16782	03/08/2001	WIPO				
0000	XXXXXX	WO 01/16770	03/08/2001	WIPO				
0000	YYYYY	WO 01/16769	03/08/2001	WIPO		-		
9000	AZZZZZZ	WO 01/15718	03/08/2001	WIPO				
	AAAAA.	WO 97/38372	10/16/1997	WIPO				
255000000	вввввы	WO 94/15287	07/07/1994	WIPO				
V	cccccc	EP 0 809 180	11/26/1997	Europe				
/TŇ/	DDDDDDI	EP 0 745 933	12/04/1996	Europe				

Examiner Signature	7 /Toan Nguyen/	Date Considered	10/25/2008
EXAMINER: Initial	s citation considered. Draw line through citation if n	ot in conformance and	d not considered. Include copy of this form with

next communication to applicant.

Substitute Form PTO-1449 (Modified) U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. Application No. 10559-132002 10/684,078		
by Ap	closure Statement oplicant	Applicant Gilbert Wolrich et al.		
(Use several sh (37 CFR §1.98(b))	eets if necessary)	Filing Date 10/10/03	Group Art Unit 2661	

	Foreign Patent Documents or Published Foreign Patent Applications								
Examiner	Desig.	Document	Publication	Country or			Trans	slation	
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No	
/TN/	EEEEEE	0 633 678	01/11/1995	Europe					
00000000	#FFFFFF	EP 0 464 715	01/08/1992	Europe					
·V	cggggg	EP 0 379 709	08/01/1990	Europe				***	
./TN/	ннннн	59111533	06/27/1984	Japan					

	Other Documents (include Author, Title, Date, and Place of Publication)						
Examine		<u>_</u>					
r Initial	Desig. ID	Document					
/TN/	AIIIIIII	Byrd et al., "Multithread Processor Architectures," <i>IEEE Spectrum</i> , Vol. 32, No. 8, New York, 1 August 1995, pp. 38-46.					
0000000000	AJJJJJJJ	Doyle et al., Microsoft Press Computer Dictionary, 2 nd ed., Microsoft Press, Redmond, Washington, USA, 1994, p. 326.					
0000000000	KKKKKKKK	Fillo et al., "The M-Machine Multicomputer," IEEE Proceedings of MICRO-28, 1995, pp. 146-156.					
•	LLLLLLL	Gomez et al., "Efficient Multithreaded User-Space Transport for Network Computing: Design and Test of the TRAP Protocol," <i>Journal of Parallel and Distributed Computing</i> , Academic Press, Duluth, Minnesota, USA, vol. 40, no. 1, 10 January 1997, pp. 103-117.					
2000000000	MMMMMMM Haug et al., "Reconfigurable hardware as shared resource for parallel threads," IEEE on FPGAs for Custom Computing Machines, 1998.						
000000000	Hauser et al., "Garp: a MIPS processor with a reconfigurable coprocessor," Proceedings of the 5 th Annual 1EEE Symposium on Field-Programmable Custom Computing Machines, 1997.						
socooooo	0000000	Hyde, R., "Overview of Memory Management," Byte, vol. 13, no. 4, 1998, pp. 219-225.					
X0000000	PPPPPPPP	Litch et al., "StrongARMing Portable Communications," IEEE Micro, 1998, pp. 48-55.					
000000000000000000000000000000000000000	coooooo	Schmidt et al., "The Performance of Alternative Threading Architectures for Parallel Communication Subsystems," Internet Document, <i>Online!</i> , 13 November 1998.					
0000000	RRRRRRRR	Thistle et al., "A Processor Architecture for Horizon," IEEE, 1998, pp. 35-41.					
***************************************	ASSSSSSS	Tremblay et al., "A Three Dimensional Register File for Superscalar Processors," IEEE Proceedings of the 28 th Annual Hawaii International Conference on System Sciences, 1995, pp. 191-201.					
***************************************	TTTTTTTT	Trimberger et al, "A time-multiplexed FPGA," Proceedings of the 5 th Annual IEEE Symposium on Field-Programmable Custom Computing Machines," 1998.					
000000	เบบบบบบบ	Turner et al., "Design of a High Performance Active Router," Internet Document, Online, 18 March 1999.					
V	\vvvvvvv	Vibhatavanijt et al., "Simultaneous Multithreading-Based Routers," Proceedings of the 2000 International Conference of Parallel Processing, Toronto, Ontario, Canada, 21-24 August 2000, pp. 362-359.					
/TN/	wwwwww	Wazlowski et al., "PRSIM-II computer and architecture," IEEE Proceedings, Workshop on FPGAs for Custom Computing Machines, 1993.					

Examiner Signature /Toan Nguyen/	Date Considered	10/25/2008				
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						